

# 2018 Drainage Improvement Plan



# Street Flooding



S 15<sup>th</sup> Street



N Porter Road



N College Ave @ Sunbridge



W Poplar Street

# Structure Flooding



Estimate 45-50 structures with various levels of flooding that have been reported

# Property Damage/Yard Flooding

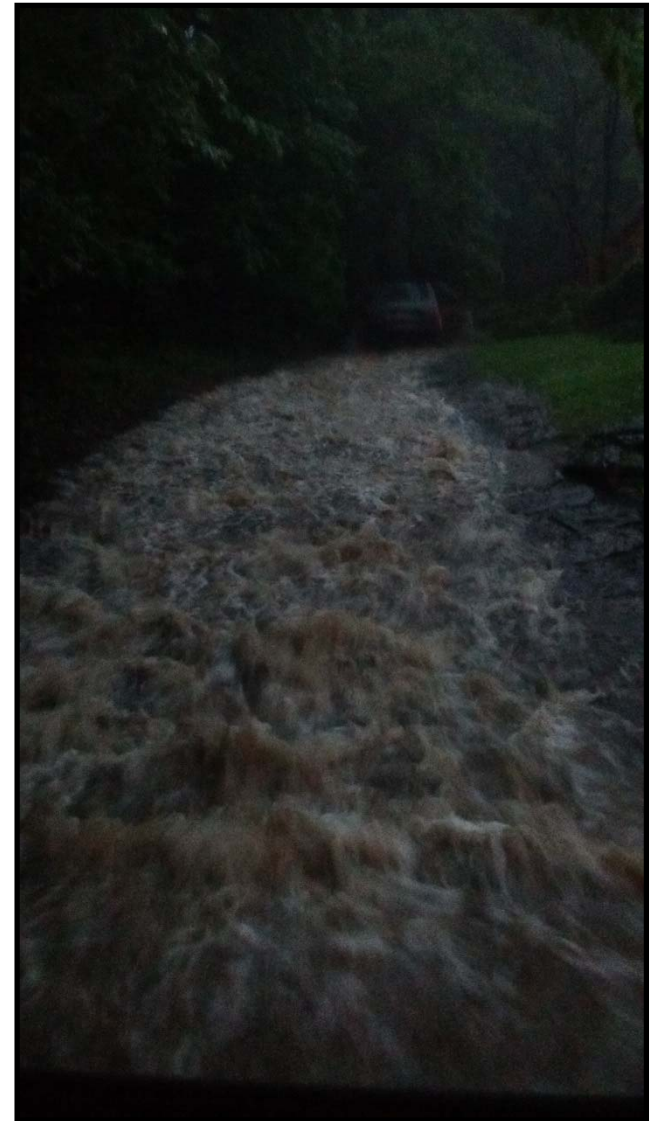
Fence Damage  
Valley Drive



Structure/Yard  
Flooding



Driveway  
Flooding



# Property Damage/Yard Flooding



E Rebecca Property Flooding



E Spyglass Hill Property Flooding

# Property Damage/Yard Flooding



College and Rebecca Parking



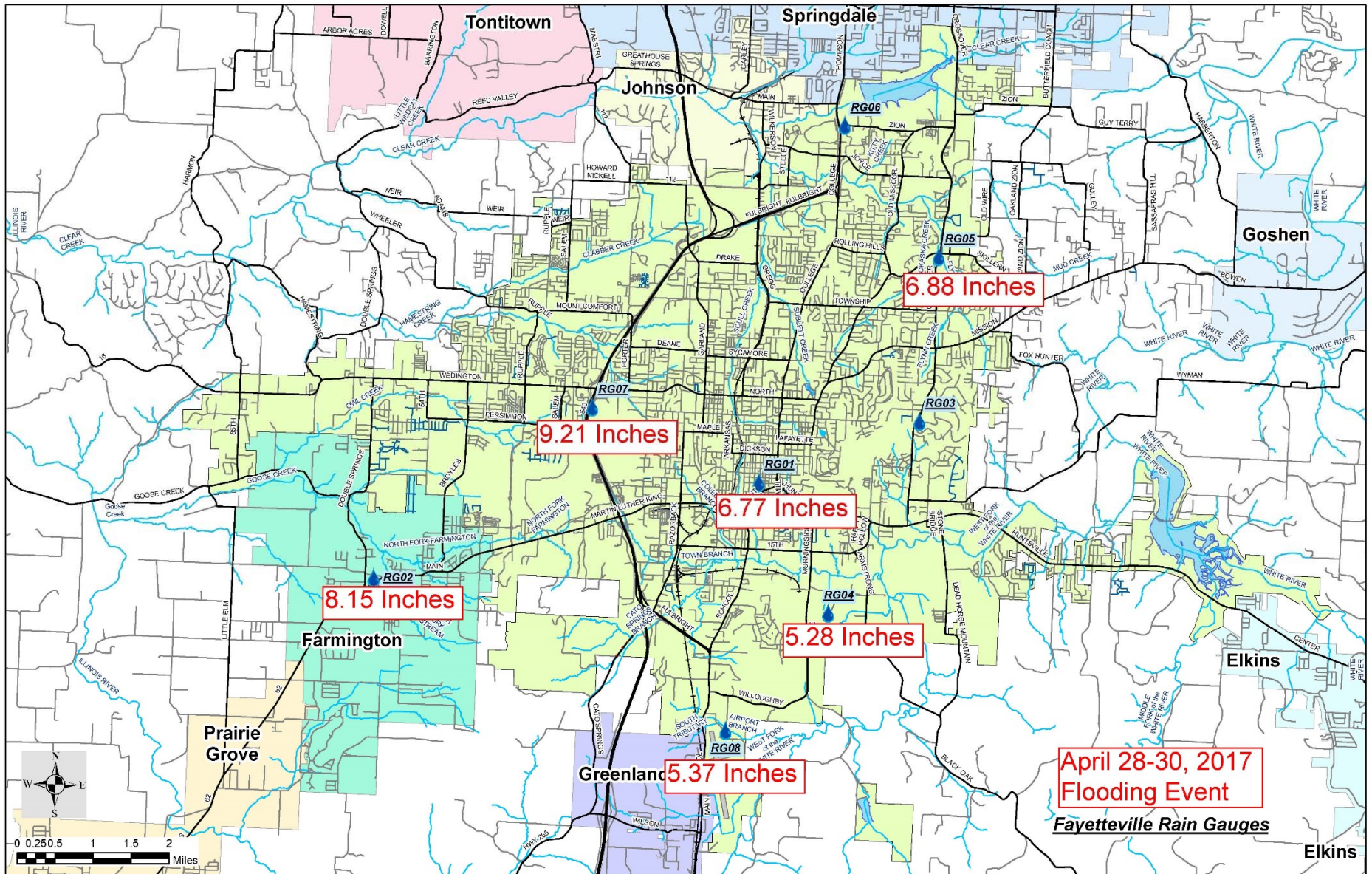
West of Holly/Sang Intersection



N Fowler Ave

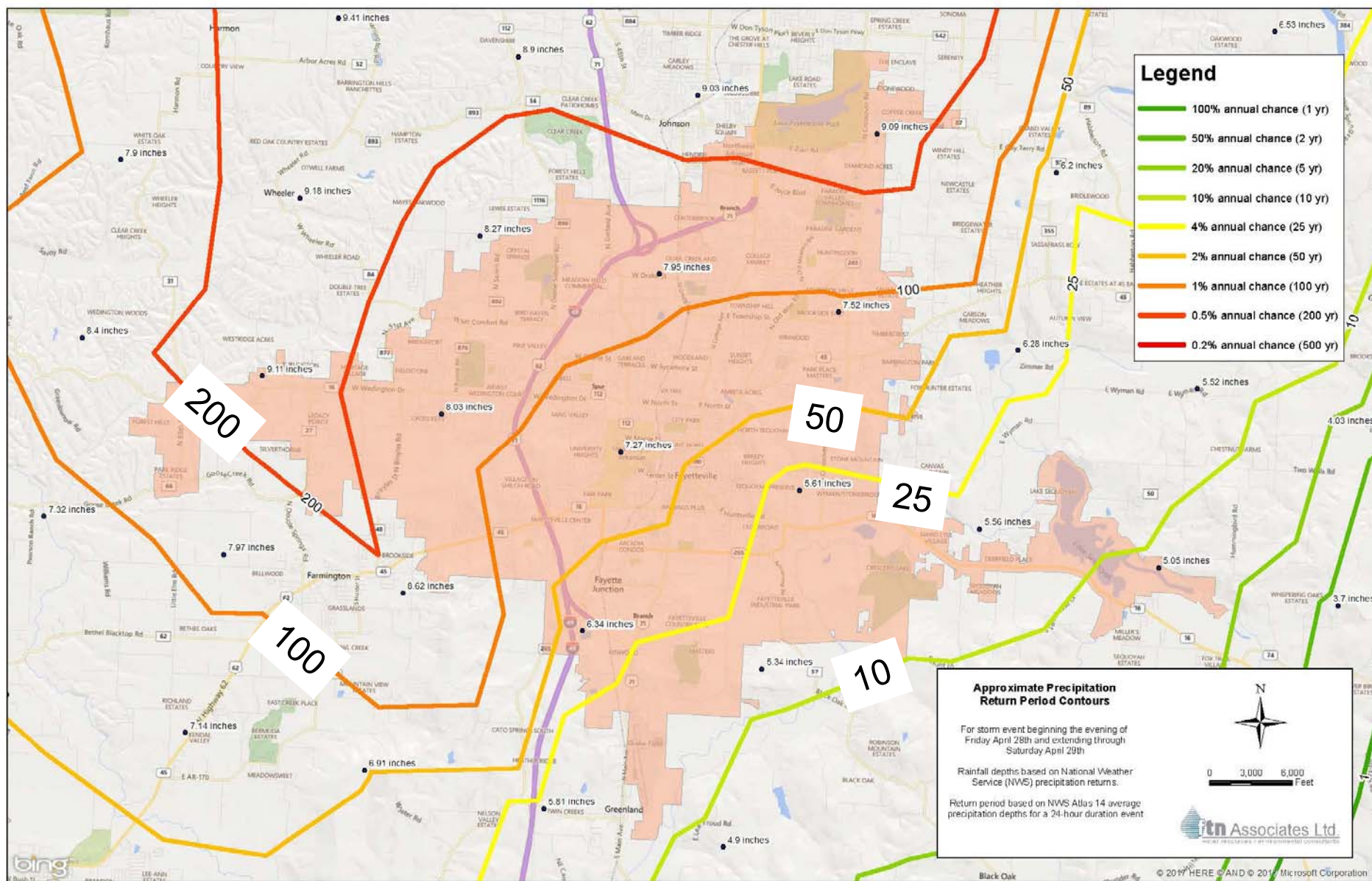


N Lewis Ave



100-Year 24 hour Rainfall: 7.91 Inches

Total Precipitation April 28<sup>th</sup>-April 30<sup>th</sup>  
City Rain Gauges



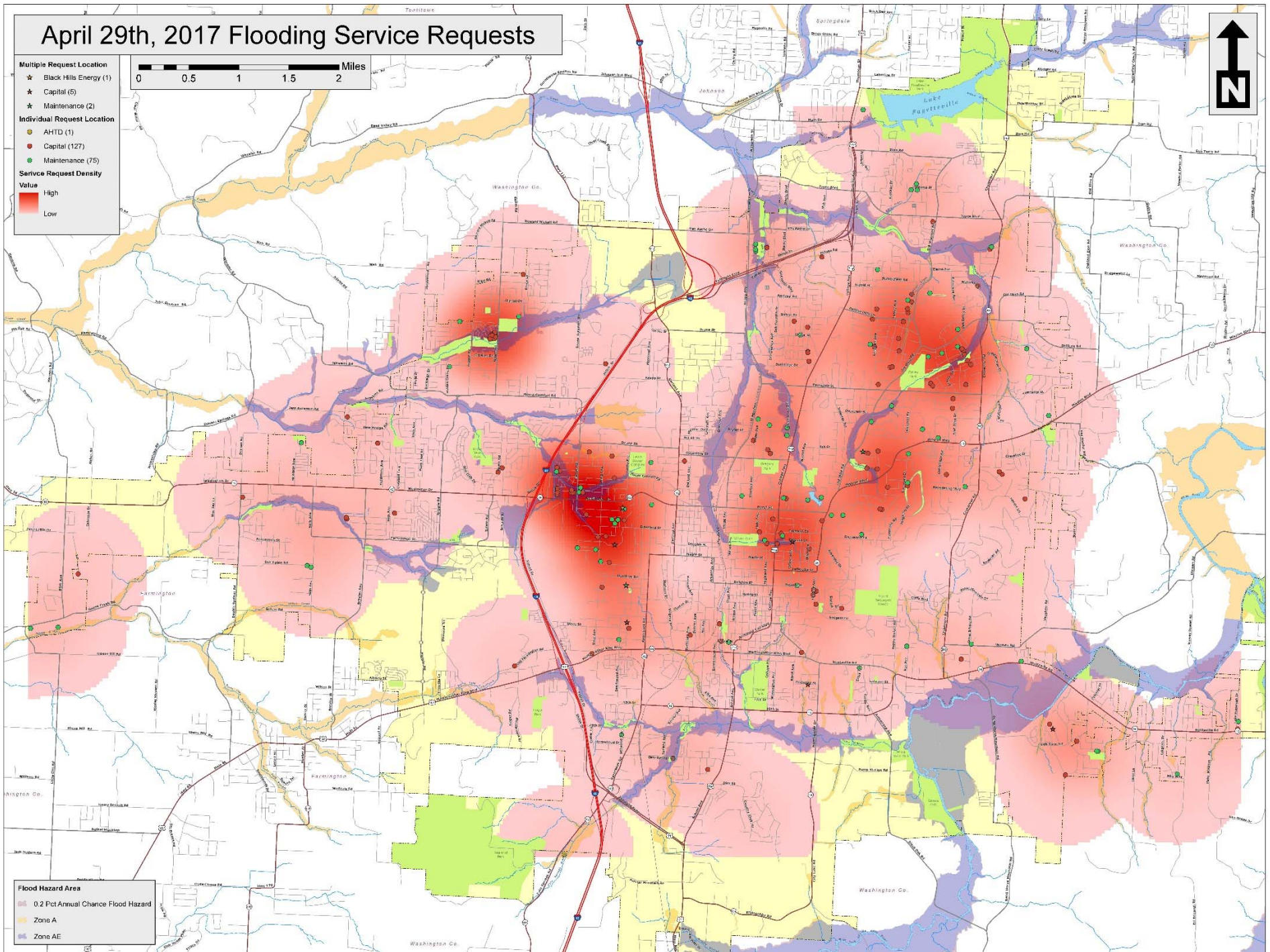
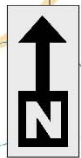
Provided by FTN Associates

Total Precipitation April 28<sup>th</sup>-April 30<sup>th</sup>  
National Weather Service

# April 29th, 2017 Flooding Service Requests

- Multiple Request Location**
- ★ Black Hills Energy (1)
  - ★ Capital (5)
  - ★ Maintenance (2)
- Individual Request Location**
- AHTD (1)
  - Capital (127)
  - Maintenance (75)
- Service Request Density**
- Value
- High
- Low

0 0.5 1 1.5 2 Miles



- Flood Hazard Area**
- 0.2 Pct Annual Chance Flood Hazard
  - Zone A
  - Zone AE

# \$ How Much \$

- Overall cost estimated \$15 to \$20 million
- Maintenance: 83 Projects; \$100K
- CIP: Over 100 total projects ranging in size
- 2018 Available funds anticipated to be approximately \$550,000

\*\*Does not include

- labor costs for maintenance projects
- capital costs for those projects in need of flood study

## 2018 Drainage Program

Construction						Rank Total
Project Name	Water in Structure	Drainage Study	Design Cost	Const Cost	Status	
Eastern Ave Interim	Yes	Yes	Complete	3,000	Transportation to construct	25
Park Ave/Wilson Park	Yes	Complete	Complete	33,000	Transportation to construct	7
Ramsey	Yes	Complete	Complete	56,000	Transportation to construct	5
Boxwood	Yes	Complete	\$6,500	275,000	Design Underway; Bid 2018	15
Spyglass Hill	No, planned prior to April	Complete	Complete	120,000	Design complete, Bid 2018	10
Black Canyon	No, sandbagged to prevent	No	Complete	500	Transportation to construct	6
S Emma Ave	No, planned prior to April	No	Complete	7,000	Transportation to construct	4
			\$ 6,500	494,500		

Design						
Project Name	Water in Structure	Drainage Study	Design Cost	Const Cost	Status	
Eastern Ave Long Term	Yes	Yes	TBD	250,000	Design started prior to April	25
Missouri Creek	Yes	Yes	TBD	3,300,000	Further study required	22
Elmhurst/McClinton	Yes	Yes	TBD	1,000,000	Design Required	17
Sunbridge/College	Yes	Yes	TBD	2,250,000	Partial design complete	16
Country Way/Ferguson	Yes	Yes	TBD	275,000	Design Required	12
Linda Jo Place	Yes	Yes	TBD	150,000	Design Required	11
Homespun	Yes	Yes	TBD	25,000	Design Required	10
S River Meadows/Cherry Hills	Yes	Yes	TBD	25,000	Design Required	8
Palmer Ave	Yes	Yes	TBD	15,000	Design Required	5
E Huntsville	Yes	Yes	TBD	10,000	Design Required	5
			TBD	7,300,000		

Additional Study						
Project Name	Water in Structure	Drainage Study	Design Cost	Const Cost	Status	
Salem Village	Yes	Yes	TBD	TBD	Further study required	72
Valley Drive	Yes	Yes	TBD	TBD	Further study required	37
West End	Yes	Yes	TBD	TBD	Further study required	20
			TBD	TBD		

**2017/2018 Construction Total \$ 501,000**

Total Remaining in 02108 \$ 150,000

2018 Engineering Funding \$ 400,000

\*\*2018 Transportation Funding \$ 15,000

Total Funding Available \$ 565,000

Remaining for Design \$ 64,000

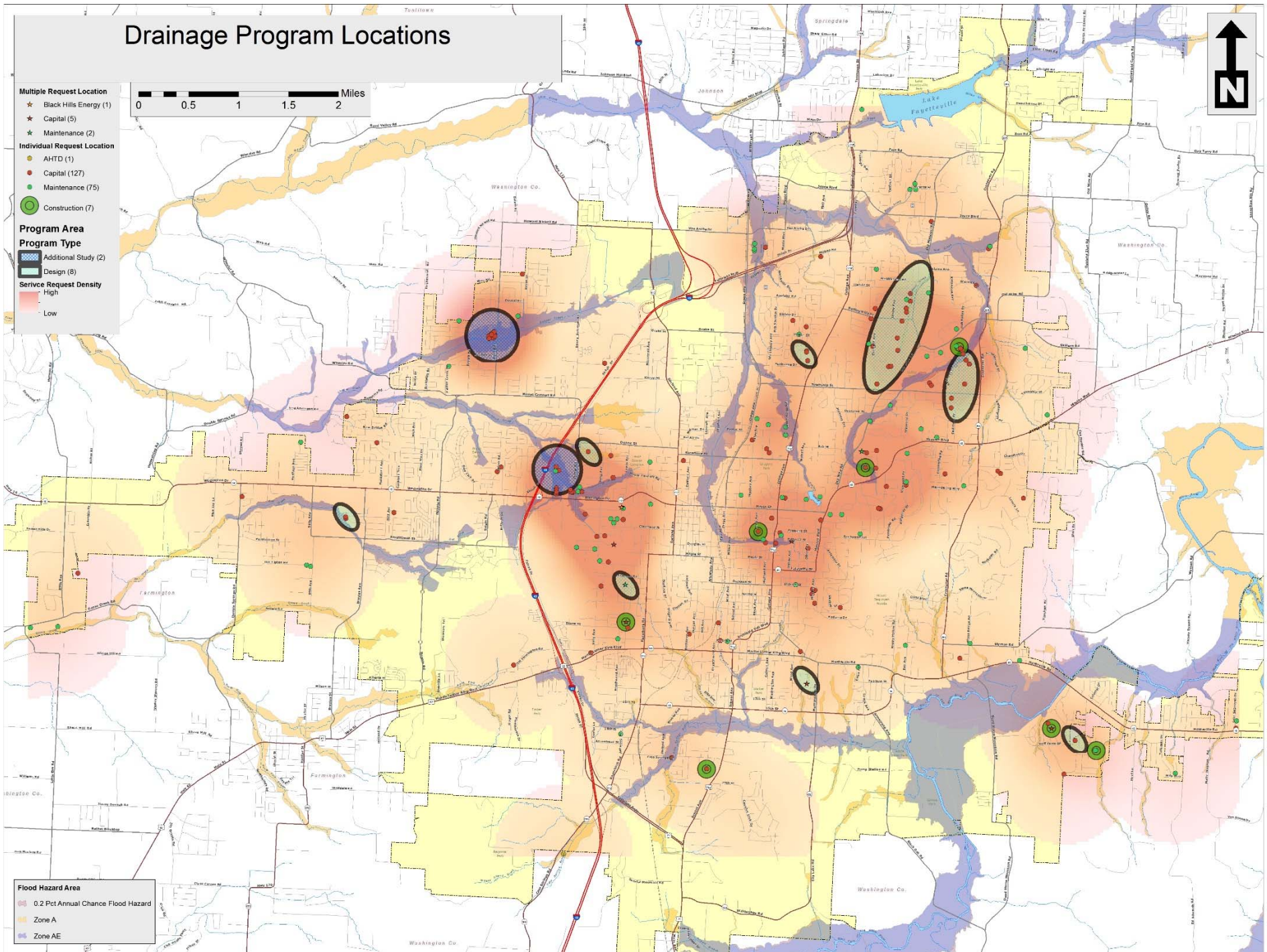
\*Ranking score, 5 pts per house flooded, 2 points per house if flooding reaches foundation, single point for all other issues/damage  
Example, 2 homes in neighborhood flood, 1 other has flooding up to foundation and 2 others have property damage  
(5x2)+(2x1)+2=14 Total Points for that area/issue

\*\*Remaining from Transportation Drainage funding after current and anticipated 2018 obligations

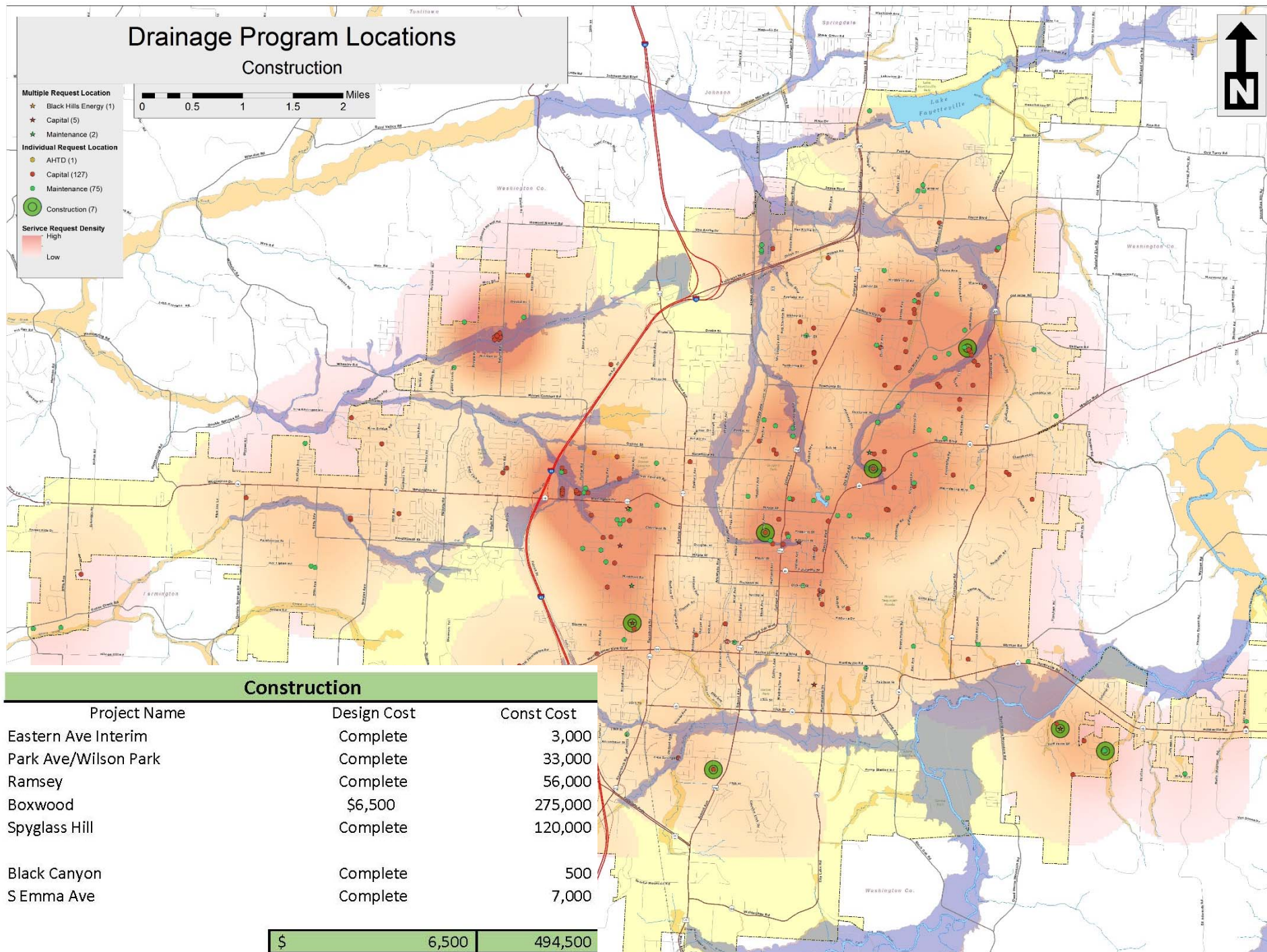
# Drainage Program Locations

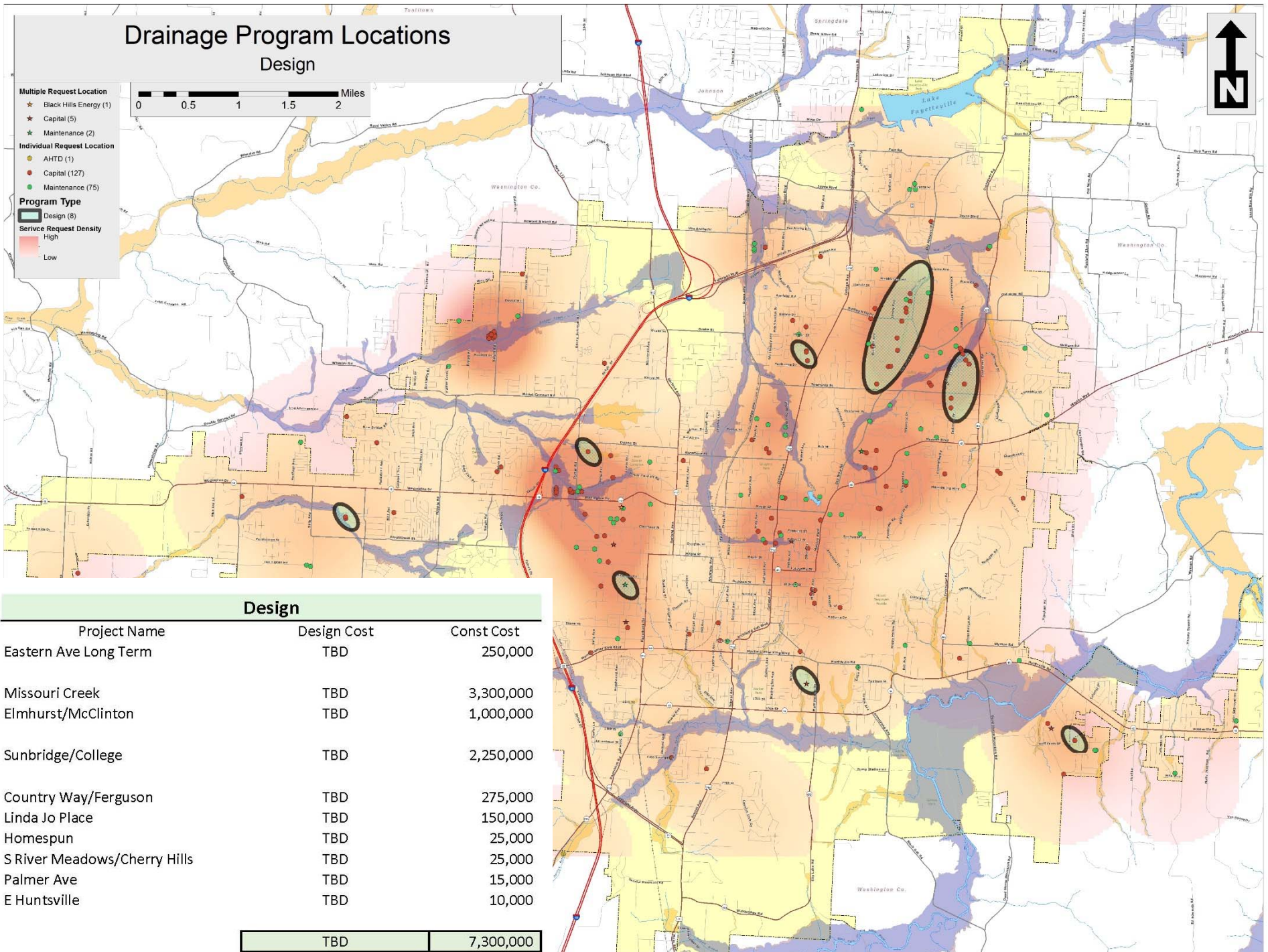
- Multiple Request Location**
- ★ Black Hills Energy (1)
  - ★ Capital (5)
  - ★ Maintenance (2)
- Individual Request Location**
- AHTD (1)
  - Capital (127)
  - Maintenance (75)
  - Construction (7)
- Program Area**
- Program Type**
- Additional Study (2)
  - Design (8)
- Service Request Density**
- High
  - Low

0 0.5 1 1.5 2 Miles



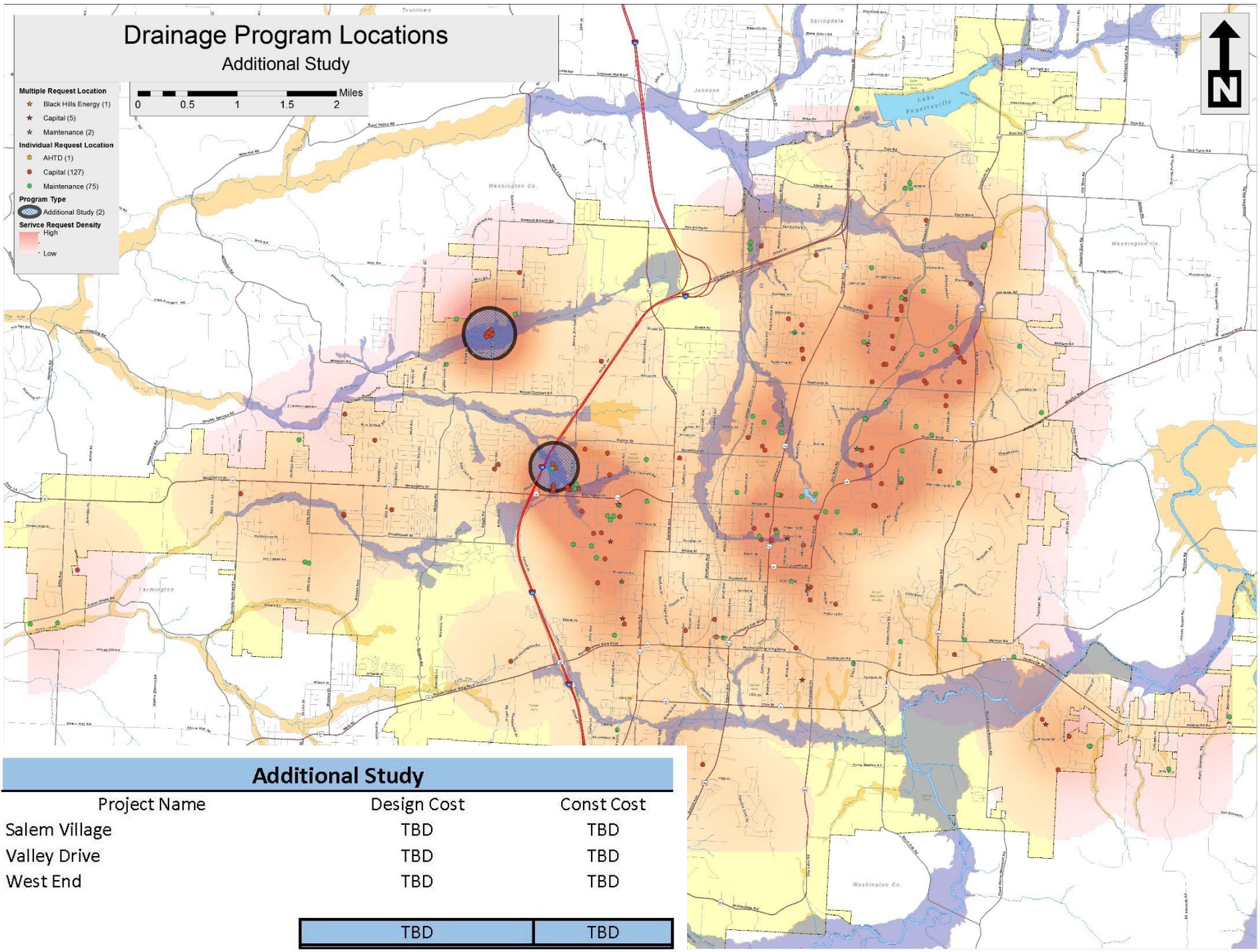
- Flood Hazard Area**
- 0.2 Pct Annual Chance Flood Hazard
  - Zone A
  - Zone AE





### Design

Project Name	Design Cost	Const Cost
Eastern Ave Long Term	TBD	250,000
Missouri Creek	TBD	3,300,000
Elmhurst/McClinton	TBD	1,000,000
Sunbridge/College	TBD	2,250,000
Country Way/Ferguson	TBD	275,000
Linda Jo Place	TBD	150,000
Homespun	TBD	25,000
S River Meadows/Cherry Hills	TBD	25,000
Palmer Ave	TBD	15,000
E Huntsville	TBD	10,000
	TBD	7,300,000



# Long Term Funding Mechanisms

- Capital Improvement Program
- Future Bond Issue
- Stormwater Utility

# Next Steps



- Stormwater Utility Feasibility Study
- Questions?
  - Contact the Engineering Division,  
575-8206  
[engineering@fayetteville-ar.gov](mailto:engineering@fayetteville-ar.gov)